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(54) Title: KIM-1 ANTAGONISTS AND USE TO MODULATE IMMUNE SYSTEM

(57) Abstract: The use of KIM-1 antagonists to inhibit signaling between a T cell and a second cell, e.g., an antigen-presenting cell, is disclosed. Such inhibition is useful for treatment of diseases including various autoimmune diseases and graft-versus-host disease. Also disclosed is the use of a KIM-1 antagonist to inhibit secretion of IFN- $\gamma$  by lymphocytes or other immune cells in a mammal. Inhibition of IFN- $\gamma$  is useful for treatment of inflammatory diseases or disorders, e.g., inflammatory bowel disease.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/41294

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61K 39/395, 39/00, 38/00; C07K 17/00  
 US CL : 424/143.1, 185.1; 514/8, 530/395

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 424/143.1, 185.1; 514/8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BAILLY et al. Shedding of kidney injury molecule-1, a putative adhesion protein involved in renal regeneration. J Biol Chem. 18 October 2002 (18.10.2002), Vol. 277, No. 42, pages 39739-39748.	1-41
Y	ICHIMURA et al. Kidney injury molecule-1 (KIM-1), a putative epithelial cell adhesion molecule containing a novel immunoglobulin domain, is up-regulated in renal cells after injury. J Biol Chem. 13 February 1998 (13.02.1998), Vol. 273, No. 7, pages 4135-4142. See page 4136, 2nd col., under Affinity-purified Antibodies.	36
X,P	US 6,664,385 B1 (SANICOLA-NADEL et al.) 16 December 2003 (16.12.2003), Column 15, lines 21-45.	36
A	US 6,084,083 A (LEVINSON) 02 July, 2000 (02.07.2000).	1-41

 Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

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02 September 2004 (02.09.2004)

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**INTERNATIONAL SEARCH REPORT**

PCT/US03/41294

**Continuation of B. FIELDS SEARCHED Item 3:**

WEST, MEDLINE, STN.

searched terms: KIM-1, anti-KIM-1 antibodies, KIM-1 antagonist, graft, immunue disorder, T cell, B cell, helper cell, GVHD.